

ABSTRACT OF THE DISCLOSURE

By improving profile of impurity concentration in a channel portion of an FET or an IGBT of a trench gate type, variation of threshold value is lessened, and a destruction caused by current concentration is prevented while suppressing deterioration of cut-off characteristics. An island of a base region of p-type is formed in a semiconductor substrate of n-type by carrying out high acceleration ion implantation twice followed by annealing, so that the impurity concentration profile in a channel portion changes gradually in a depth direction. Accordingly, it is possible to lessen variation of the threshold value and to reduce pinch resistance while at the same time improving sub-threshold voltage coefficient and conductance characteristics.